

REMARKS:

In accordance with the foregoing, claims 1, 2, 3, 6, 7, 10, 11, 12, 15, 16, 19, 20 and 22 are amended for clarification, and new claims 24 and 25 has been added. No new matter has been added. Thus, claims 1-25 are pending and under consideration.

OBJECTIONS TO CLAIMS:

The Examiner objected to Claims 7 and 16 because they have similar limitations but different dependencies. Claim 16 has been amended to depend from claim 15. Accordingly, withdrawal of the objection is respectfully requested.

OBJECTIONS TO THE TITLE:

The Examiner objected to the title of the present application for lack of clarity. Accordingly, the title has been amended to read, "A computer-assisted education apparatus and method for adaptively determining presentation pattern of teaching materials".

OBJECTIONS TO THE SPECIFICATION:

On page 4 of the outstanding Office Action, the Examiner objected to various paragraphs on pages 7, 8, and 10. Accordingly, pertinent amendments have been made to the specification, thus, withdrawal of the objections to the specification is respectfully requested.

REJECTION UNDER 35 U.S.C. §101:

In the outstanding Office Action, claim 19 was rejected under 35 U.S.C. §101 as being directed to non-statutory subject matter.

The aspect of the invention recited in claim 19 is directed to a computer-assisted education system via which a teaching material is presented based on learning behavior of the user. Further, the system analyzes a learning process of the user and modifies the teaching material accordingly. In claim 19, providing the questionnaire, determining the teaching material presentation pattern, selecting and editing elements of a specific subject based on the teaching material presentation pattern, and analyzing during the learning process of the user are preformed via the computer-assisted education system.

According to MPEP §2106, for process claims related to computer inventions to be statutory, "... a claimed computer related process must either: (A) result in a physical transformation outside the computer for which a practical application in the technological arts is

either disclosed in the specification or would have been known to a skilled artisan or (B) be limited to a practical application within the technological arts.” Further, MPEP §2106 states that “a claim is limited to a practical application when the method, as claimed, produces a concrete, tangible and useful result.”

Determination of the teaching material based on questionnaire provided to the user is a concrete, tangible and useful result as the teaching material is adjusted accordingly and presented to the user for teaching purposes (see, State Street Bank & Trust Co. v. Signature Financial Group Inc., 47 U.S.P.Q.2d 1596 (Fed. Cir. 1998)).

Claim 19 has been amended to show that the functions as recited are employed as a component of the computer-assisted education system.

It is respectfully submitted that claim 19 satisfies the requirements of 35 USC § 101, and withdrawal of the rejection is requested.

REJECTION UNDER 35 U.S.C. §112¶1:

On page 7 of the Action, the Examiner rejected claim 19 under 35 U.S.C. section 112, ¶1 for failure to provide an enabling disclosure. Essentially the Examiner alleges that claim 19 contains subject matter which is not enabled by the disclosure because unamended claim 19 is directed nonuseful.

According to MPEP §2164.07(I)(A), “if a claim fails to meet the utility requirement of 35 U.S.C. 101 because it is shown to be nonuseful or inoperative, then it necessarily fails to meet the how-to-use aspect of the enablement requirement of 35 U.S.C. 112, first paragraph”.

Claim 19 as amended recites a useful and operative computer-assisted education system that analyzes a questionnaire presented to the user to determine a profile of personality trait according to which a teaching material is selected and presented. Thus, withdrawal of the §112¶1 is respectfully requested.

REJECTION UNDER 35 U.S.C. § 102(b):

In the outstanding Office Action, claims 1-23 were rejected under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 5,810,605 ('605).

The '605 system is directed a distance learning system for presenting a material to a student based on a stored learning profile of the student indicating the student's capabilities, preferred learning style, and progress, which determines whether the student has mastered the

presented material after the student has completed the material and adjusts the material accordingly for the next presentation.

The present application discloses a system and method of dynamically adjusting a presentation pattern presented to a student in accordance with real time learning behavior of the student.

The '605 system presents a selected educational program to a student in a manner compatible with the student's stored learning profile (see, column 3, lines 10-13, and column 3, lines 26-30 of '605), which is periodically modified based upon assessment of the student's performance on the educational program (see, FIG. 2, abstract, and column 4, lines 5-7 of '605).

The '605 system uses multiple linked computers via which the student remotely connects (see, column 4, lines 60-67 of '605), and is presented with appropriate lessons and teaching strategies based on the student's profile (see, FIG. 2 and corresponding text of '605). Then, the '605 system assesses the student's mastery of the lesson presented (see, FIG. 2, column 4, lines 5-7, and column 9, lines 21-24 of '605) and the given lesson is presented in different ways, if the student does not master the lesson the first time (see, column 4, lines 60-67 of '605). Accordingly, the '605 system does not dynamically modify the student's learning profile **during** the presentation. Instead, the student's learning profile is updated after the student's performance is assessed (see, column 4, lines 35-39, and FIG. 2 of '605).

The system of the present application dynamically changes the teaching material by "analyzing learning behavior of said user during a learning process", and customizes the teaching material by "modifying said teaching material presentation pattern in accordance with said analysis" (see, claims 1, 10, 19, page 2, line 30-36, and page 4, line 33 through page 5, line 5 of the present application). Thus, unlike the '605 system that assesses the student's progress after the student has been presented with the educational program, the system of the present application dynamically modifies the learning material in response to the student's performance during the presentation. This allows the present application to adapt the teaching material in real-time and present a teaching material accurately tailored to the particular student.

Further, the teaching material presentation pattern of the present application "defines specific magnitudes related to difficulty, required time and dissimilarity of the teaching material elements" (see, claims 4, 13, 21, and FIG. 4 and FIG. 7 of the present application). For example, scales of 1-5 are used to describe presentation patterns of teaching materials via

the system of the present application. The '605 does not use ranges within the learning profiles to dictate a lesson, instead, lumps a student in one profile or another without accounting for students who may not perfectly fit in any one profile. Defining specific magnitudes of a learning behavior allows the system of the present application to accurately determine learning traits of a user because users in the same trait of one category may have different ranges of particular traits within the category (see, FIG. 4 and corresponding text of the present application). The profile as discussed in the '605 system lacks such specificity in defining the learning profiles of the student.

Accordingly, because the '605 system does not discuss a system for adaptively modifying a learning material based on analysis of a user's learning behavior during the presentation of the learning material to the user, the '605 system does not anticipate the present application. Withdrawal of the rejection is respectfully requested.

NEW CLAIMS:

New claim 24 has been added to highlight an aspect of the invention where learning behavior of a user are analyzed during the user's learning process according to which "the teaching materials are dynamically modified in accordance with the analysis". This affords accurately customized teaching materials to the user and improves the learning efficiency of the user.

New claim 25 has been added to emphasize that analysis of the learning behavior of the user is conducted during the time the system presents "a teaching material to the user in accordance with the determined teaching material presentation pattern". This allows real time updates to the teaching material presentation pattern.

CONCLUSION:

In accordance with the foregoing, the specification and claims 1, 2, 3, 6, 7, 10, 11, 12, 15, 16, 19, 20 and 22 have been amended, and new claims 24 and 25 have been added. Claims 1-25 are pending and under consideration.

There being no further outstanding objections or rejections, it is submitted that the application is in condition for allowance. An early action to that effect is courteously solicited.

Finally, if there are any formal matters remaining after this response, the Examiner is requested to telephone the undersigned to attend to these matters.

If there are any additional fees associated with filing of this Amendment, please charge the same to our Deposit Account No. 19-3935.

Respectfully submitted,

STAAS & HALSEY LLP

Date: May 17, 2004

By: Mark J. Henry
Mark J. Henry
Registration No. 36,162

1201 New York Avenue, NW, Suite 700
Washington, D.C. 20005
Telephone: (202) 434-1500
Facsimile: (202) 434-1501

FIG. 1

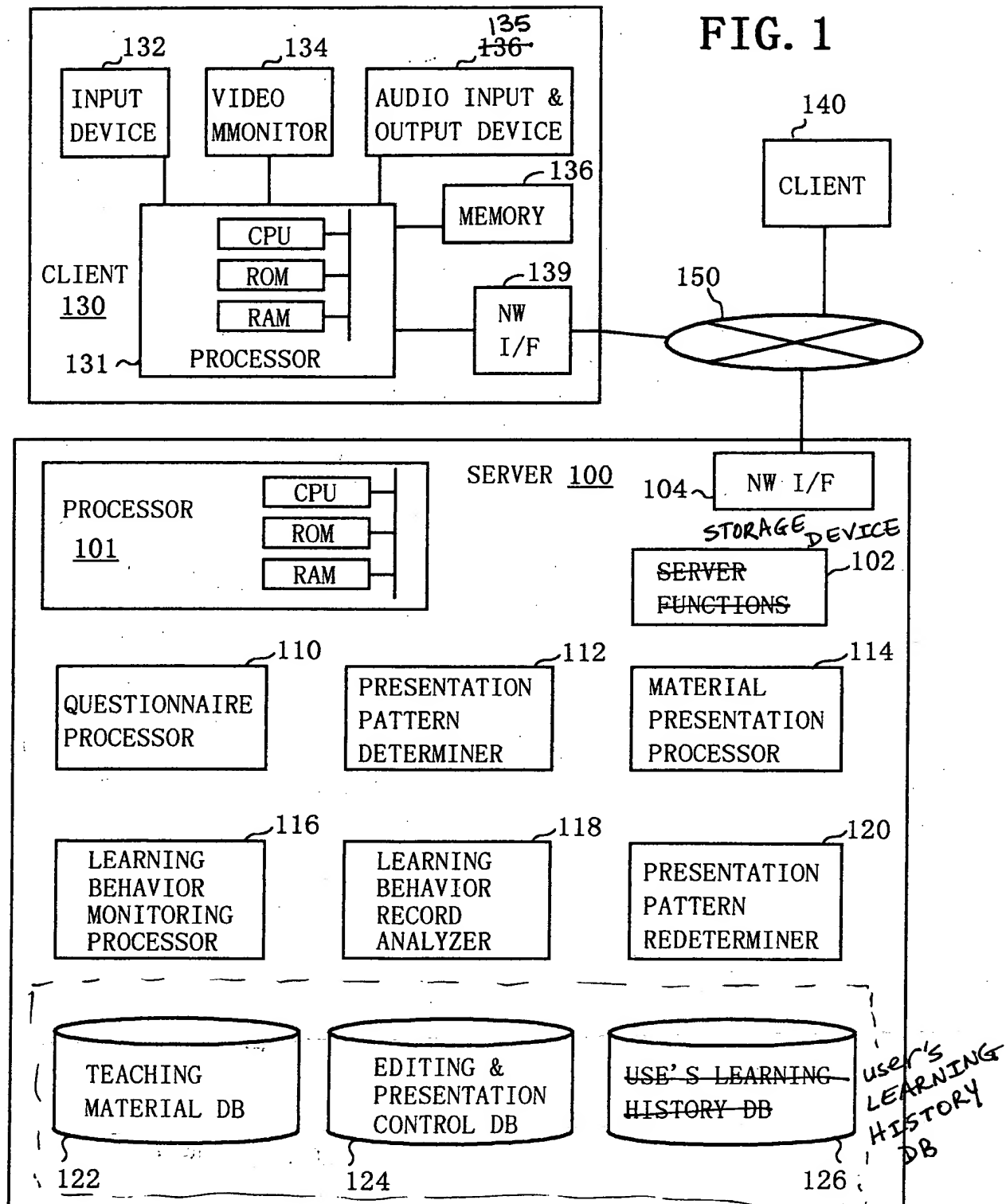
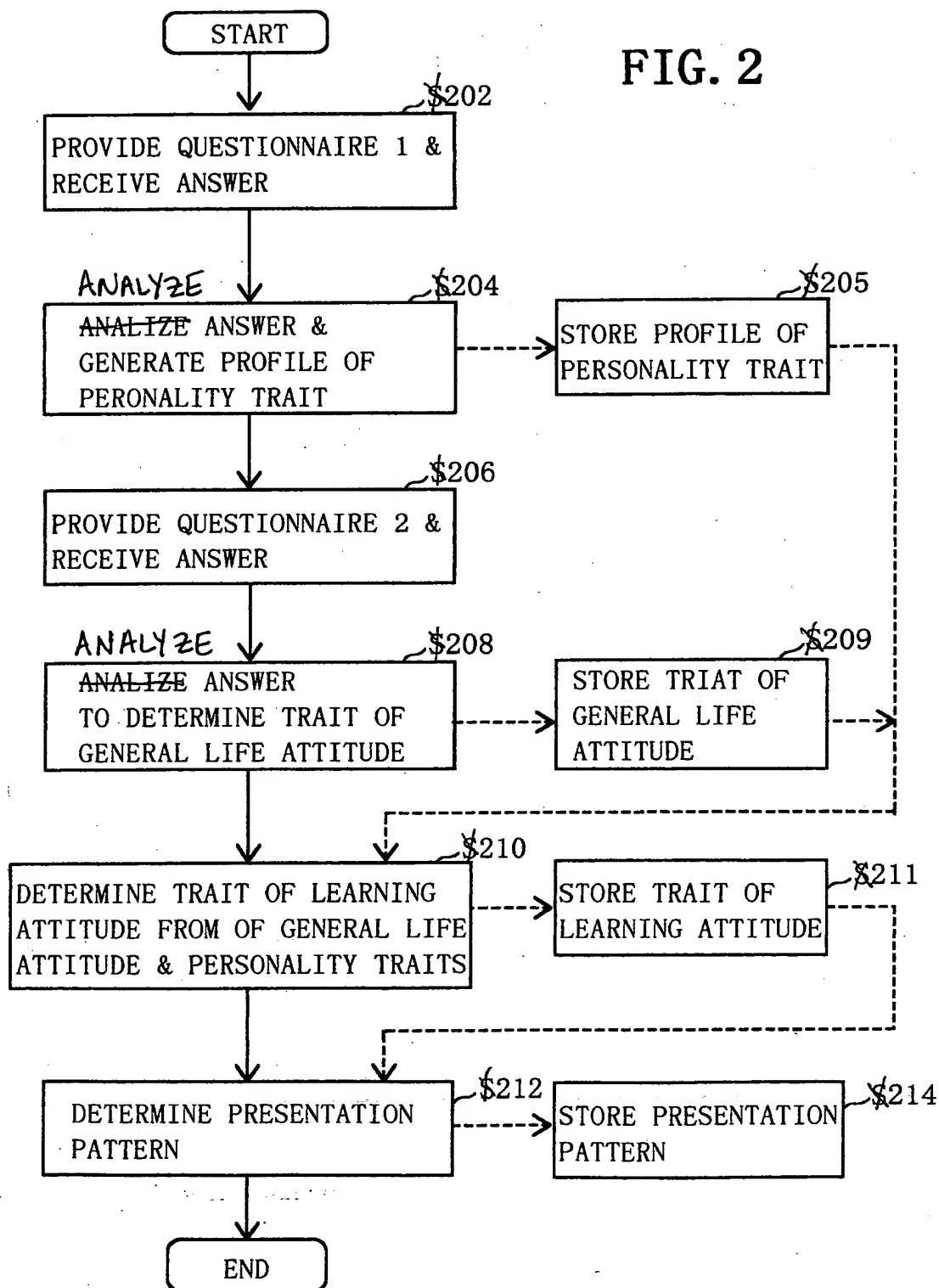


FIG. 2



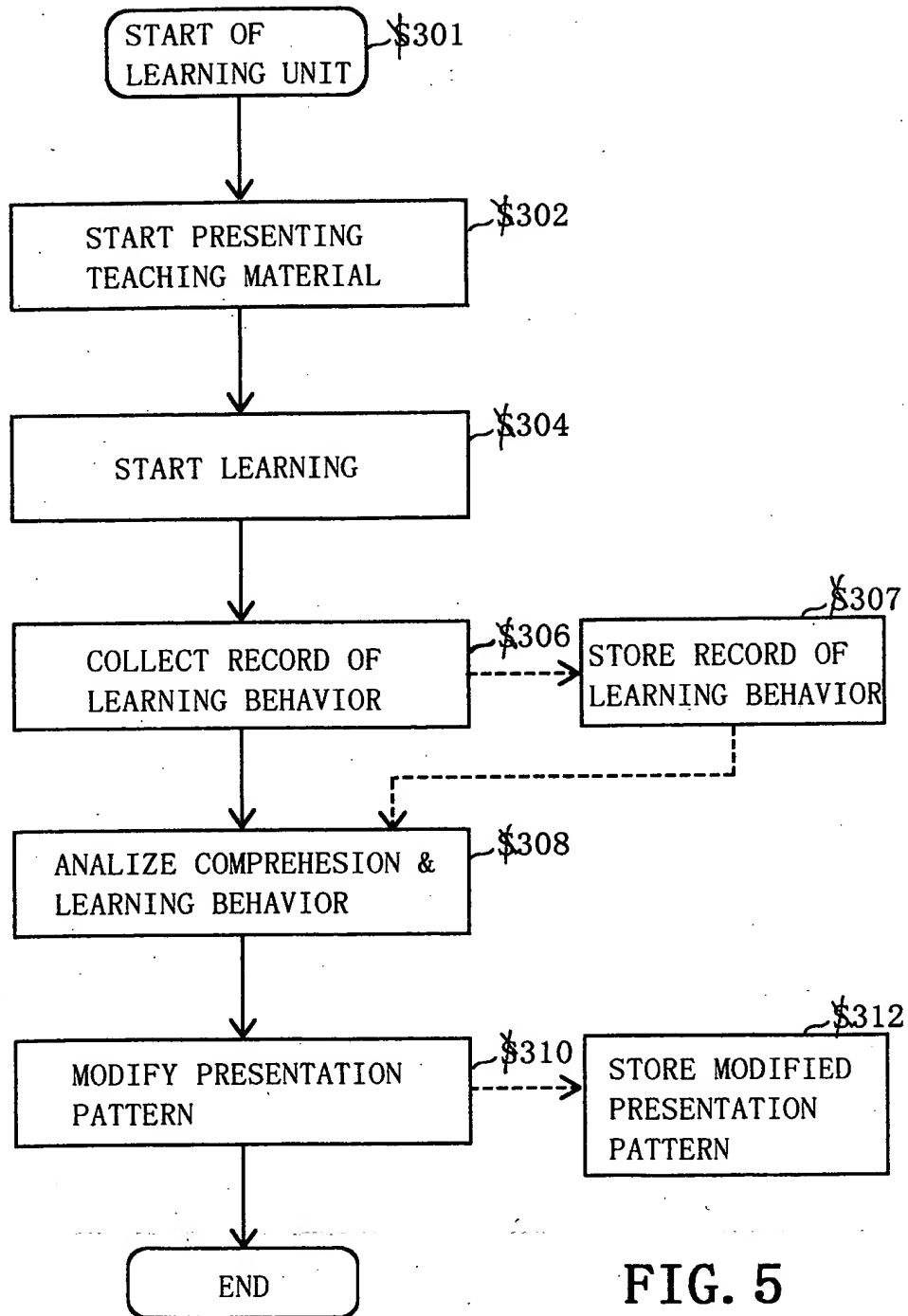


FIG. 5

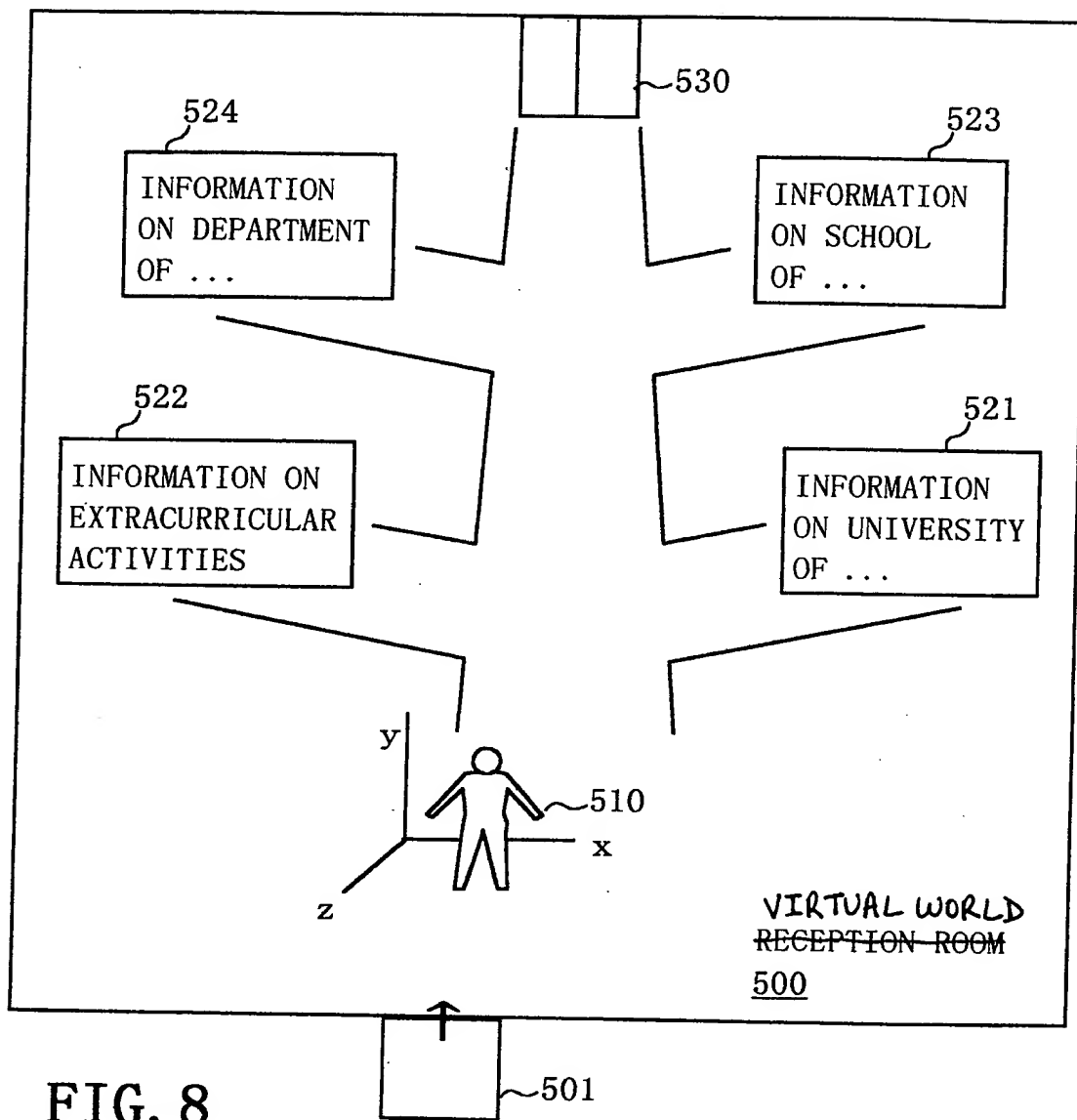


FIG. 8